INFO SHEET
Veterinary Services

United States Department of Agriculture
Animal and Plant Health Inspection Service
May 1997

NAHMS Equine '98: Needs Assessment Survey Results

Horse owners and other individuals associated with the equine industry provided the USDA with opinions on information needs to help the National Animal Health Monitoring System (NAHMS) determine priorities for a NAHMS Equine '98 study. Active public participation in a survey developed by NAHMS has helped assure the success and maximum benefit of the study to the industry.

NAHMS is a nonregulatory effort of the USDA that seeks to meet the needs of various agriculture groups for animal health information. NAHMS studies provide information that helps animal industries maintain the health and well-being of their animals and ultimately produce higher quality products with greater efficiency. Studies are designed to deliver baseline data and focus on areas of national importance not already adequately studied by another organization.

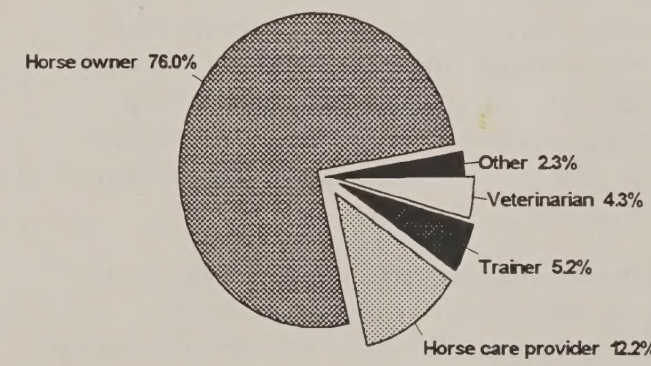
Prior to each national study, NAHMS conducts a needs assessment to determine an industry's critical information gaps. Needs assessment activities gather input through multiple means, including surveys, review of the literature and focus group meetings. As of January 1997, five focus group meetings with representatives from multiple aspects of the horse industry were conducted to gain input on priorities for an Equine '98 study focus.

NAHMS designed a short questionnaire to collect information directly from individual horse owners and others allied with the industry. Responses were collected via a toll-free number and an internet access site from January 1 through March 15, 1997. A total of 1,297 individuals responded via telephone and 1,302 replied via the internet for a total of 2,599 respondents. Over three-fourths of the respondents (76.0 percent) described their primary role in the industry as horse owners, while the rest were veterinarians, horse care providers (farm or stable owners or employees), trainers, or specified other involvements (Figure 1).

Based on responses to this questionnaire, determining occurrence of health problems was a top priority of the **general issues** presented (Figure 2), irrespective of

Figure 1

Percent of Respondents by Primary Industry Involvement*
Total = 2,584



*Fifteen respondents did not specify their primary industry involvement.

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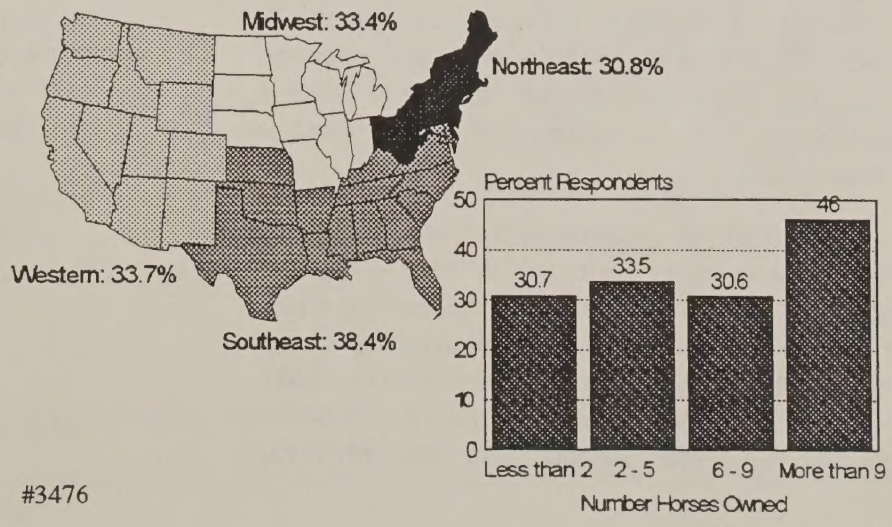
Figure 2

Percent of Respondents Ranking Occurrence of Health Problems as Top General Priority by Region and Number of Horses



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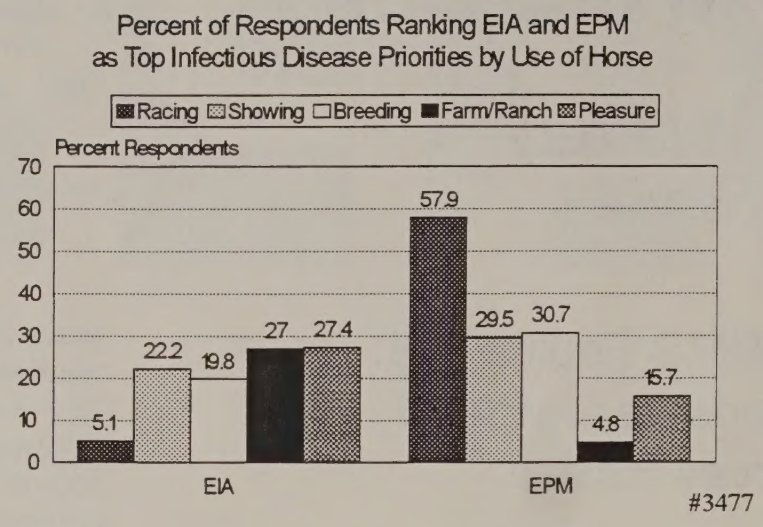
respondents' involvement in the industry, horse use, number of horses owned, or region (see Tables 1-4). Other general issues categories included: use of health management practices, impact of those management practices on equine health, and environmental or humane issues.

The digestive system was the number one **body system** priority for respondents irrespective of the number of horses owned, region, or involvement in the industry except for trainers (Tables 1, 3, and 4). Results for top priority problems by body system varied by horse use (Table 4). Digestive problems was the top priority for respondents whose primary horse use was for showing (36.1 percent), breeding (32.2 percent), and pleasure (45.6 percent). The body systems of highest concern for respondents in the racing category were respiratory (32.8 percent) and leg (27.2 percent) problems. The largest concerns to those describing themselves in the farm/ranch category were leg (38.1 percent) followed by digestive (36.5 percent) problems. Those who primarily show horses were equally concerned with leg and digestive problems. Not surprising, more respondents whose primary use of horses was for breeding ranked reproductive problems as a top priority (26.6 percent) than respondents with other uses for their horses. Trainers ranked leg problems as the top priority (30.8 percent).

Of the specific **infectious diseases** listed, equine infectious anemia (EIA) or equine protozoal myeloencephalitis (EPM) were the most common top priorities, irrespective of respondents' region, horse use (Figure 3), or number of horses owned. EIA was more frequently a top priority for horse owners and health care providers (24.0 and 24.2 percent, respectively) than for veterinarians (10.7 percent) and trainers (12.0 percent). The combined ranking of strangles, influenza, and herpesviruses as common causes of infectious respiratory disease of the horse would rank them as a top priority with a majority of respondents.

Twenty or more respondents indicated each of the following as top priorities in the "other" category: general education of horse owners, nutrition issues, Potomac horse fever, or recurrent uveitis and its relationship to leptospirosis. Respondents ranked vesicular stomatitis (VS) as a top priority within the infectious diseases category more frequently in the

Figure 3



Western region (4.5 percent) which contributed a higher percent in the "other" category than other regions.

Respondents voluntarily completed this survey and, therefore, may not have represented the horse industry at large. However, these results are valuable as one component of the overall NAHMS Equine '98 needs assessment process.

The Equine '98 study focus will be determined following completion of the last focus group meeting which will be conducted in conjunction with the American Horse Council's State Horse Councils Committee Meeting in June 1997. The study focus will be based on outcomes of multiple components of the needs assessment process which occured over a 2-year period. These components included group meetings with equine industry representatives and the national needs assessment survey results. Study feasibility is determined by availability of effective study design methods, funding, and equine industry demographics. The final study design will be determined by results of the needs assessment process and the ability of the NAHMS program to fulfill these needs.

Once the study focus is set, NAHMS will develop an optimal study design to collect the necessary data, incorporating both questionnaires and biological sample collection. Data collection for the NAHMS national equine study will begin in the spring of 1998.

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Table 1. Top Information Priorities by Primary Involvement in the Horse Industry[1]

	Primary Involvement					
	Veterinarian	Horse Owner	Horse Care Provider	Trainer	Other	All Responses
Number Respondents:	112	1,965	314	133	60	2,599
General Issues:	**Percent Respondents Ranking Item as Top Priority**					
Determine occurrences of health problems	46.4	35.0	30.6	27.8	25.0	34.3
Determine how often health management practices are implemented	9.8	12.3	14.3	13.5	16.7	12.5
Assess impact of health management practices on equine health and disease	35.7	22.9	28.0	30.8	16.7	24.4
Study the impact of horses on the environment and the environment on horses	1.8	2.4	1.3	2.3	6.6	2.4
Study humane issues such as transport of horses and racing injuries	3.6	23.3	21.6	18.8	20.0	21.9
Other than those listed	1.8	3.1	3.2	2.3	15.0	3.3
No response	0.9	1.0	1.0	4.5	0.0	1.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Problems by Body System (Top five of possible eight categories):						
Respiratory problems	25.0	14.0	12.7	24.1	6.7	14.6
Digestive problems	40.2	39.2	35.4	26.3	38.3	38.0
Leg problems	17.9	27.1	23.3	30.8	21.7	26.2
Reproductive problems	6.2	5.2	12.1	7.5	11.7	6.4
Spinal problems	3.6	3.2	5.1	4.5	5.0	3.5
All other responses[2]	5.3	9.4	11.1	3.8	11.6	9.3
No response	1.8	1.9	0.3	3.0	5.0	2.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Infectious Diseases (Top six of possible 14 diseases):						
Equine infectious anemia (EIA)	10.7	24.0	24.2	12.0	25.0	22.8
Equine protozoal myeloencephalitis (EPM)	23.2	23.3	29.6	41.3	20.0	24.9
Strangles	7.1	6.9	7.6	5.3	3.3	6.9
Equine Influenza	17.0	9.0	7.3	7.5	6.7	8.9
Equine Herpesviruses	17.0	4.6	5.7	4.5	1.7	5.2
Eastern/Western encephalitis (sleeping sickness)	0.0	6.9	5.1	5.3	1.7	6.2
All other responses[3]	17.9	13.4	11.6	10.6	21.6	13.6
No response	7.1	11.9	8.9	13.5	20.0	11.5
Total	100.0	100.0	100.0	100.0	100.0	100.0

1 Fifteen respondents did not indicate their type of primary involvement in the industry.
2 Eye problems, skin problems, and other problems not listed.
3 Equine viral arteritis (EVA), Rhodococcus equi, vesicular stomatitis (VS), salmonellosis, rotavirus, cryptosporidia, botulism, and diseases other than those listed.

Table 2. Top Information Priorities by Primary Use of Horse

	Primary Use of Horse[1]					
	Racing	Showing	Breeding	Farm/Ranch	Pleasure	Other
Number Respondents:	195	806	323	63	1,102	85
General Issues:	**Percent Respondents Ranking Item as Top Priority**					
Determine occurrences of health problems	47.2	33.8	42.4	39.7	30.5	34.3
Determine how often health management practices are implemented	11.3	12.4	12.4	25.4	12.2	12.5
Assess impact of health management practices on equine health and disease	20.0	26.9	23.8	17.4	23.1	24.4
Study the impact of horses on the environment and the environment on horses	1.5	2.2	1.9	3.2	2.8	2.4
Study humane issues such as transport of horses and racing injuries	12.8	21.3	15.2	9.5	27.4	21.9
Other than those listed	4.1	2.5	3.4	3.2	3.2	3.3
No response	3.1	0.9	0.9	1.6	0.8	1.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Problems by Body System (Top five of possible eight categories):						
Respiratory problems	32.8	12.0	12.7	14.3	14.4	14.6
Digestive problems	14.9	36.1	32.2	36.5	45.6	38.0
Leg problems	27.2	35.9	13.3	38.1	22.1	26.2
Reproductive problems	7.7	4.1	26.6	7.9	2.3	6.4
Spinal problems	10.3	2.4	5.9	0.0	2.5	7.1
All other responses[2]	4.6	8.2	7.4	3.2	11.3	5.7
No response	2.5	1.3	1.9	0.0	1.8	2.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Infectious Diseases (Top six of possible 14 diseases):						
Equine infectious anemia (EIA)	5.1	22.2	19.8	27.0	27.4	20.0
Equine protozoal myeloencephalitis (EPM)	57.9	29.5	30.7	4.8	15.7	20.0
Strangles	2.1	7.4	6.8	12.7	7.2	2.3
Equine Influenza	4.6	10.2	4.3	14.3	10.1	7.1
Equine Herpesviruses	4.1	3.9	12.1	6.3	4.2	3.5
Eastern/Western encephalitis (sleeping sickness)	2.1	4.3	3.7	14.3	8.1	14.1
All other responses[3]	13.8	12.4	14.2	9.5	13.9	20.1
No response	10.3	10.1	8.4	11.1	13.4	12.9
Total	100.0	100.0	100.0	100.0	100.0	100.0

1 Twenty-five respondents did not indicate a category.
2 Eye problems, skin problems, and other problems not listed.
3 Equine viral arteritis (EVA), Rhodococcus equi, vesicular stomatitis (VS), salmonellosis, rotavirus, cryptosporidia, botulism, and diseases other than those listed.

Table 3. Top Information Priorities by Number of Horses Owned

	Number of Horses Owned			
	Less than 2	2-5	6-9	More than 9
Number Respondents:	599	1,326	304	370
General Issues:	**Percent Respondents Ranking Item as Top Priority**			
Determine occurrences of health problems	30.7	33.5	30.6	46.0
Determine how often health management practices are implemented	10.0	12.4	16.8	13.5
Assess impact of health management practices on equine health and disease	26.9	24.7	24.7	18.9
Study the impact of horses on the environment and the environment on horses	2.2	2.7	2.6	1.6
Study humane issues such as transport of horses and racing injuries	24.7	22.8	20.7	14.9
Other than those listed	4.7	2.6	3.6	3.5
No response	0.8	1.3	1.0	1.6
Total	100.0	100.0	100.0	100.0
Problems by Body System (Top five of possible eight categories):				
Respiratory problems	12.5	14.6	14.5	18.4
Digestive problems	39.2	41.4	32.6	28.4
Leg Problems	30.4	25.3	26.0	22.7
Reproductive problems	2.2	4.7	11.8	15.1
Spinal problems	3.5	2.8	1.6	7.8
All other responses[1]	10.2	9.3	10.2	6.2
No response	2.0	1.9	3.3	1.4
Total	100.0	100.0	100.0	100.0
Infectious Diseases (Top six of possible 14 diseases):				
Equine infectious anemia (EIA)	22.7	24.7	23.0	15.9
Equine protozoal myeloencephalitis (EPM)	22.2	22.1	23.7	40.0
Strangles	8.0	6.9	6.3	5.7
Equine Influenza	9.5	9.8	8.2	5.4
Equine Herpesviruses	3.2	5.4	7.6	5.7
Eastern/Western encephalitis (sleeping sickness)	7.2	6.6	7.2	2.4
All other responses[2]	14.2	12.7	13.1	16.2
No response	13.0	11.8	10.9	8.7
Total	100.0	100.0	100.0	100.0

1 Eye problems, skin problems, and other problems not listed.

2 Equine viral arteritis (EVA), Rhodococcus equi, vesicular stomatitis (VS), salmonellosis, rotavirus, cryptosporidia, botulism, and diseases other than those listed.

Table 4. Top Information Priorities by Region[1]

	Region			
	Midwest	Northeast	Southeast	Western
Number Respondents:	509	503	805	575
General Issues:	**Percent Respondents Ranking Item as Top Priority**			
Determine occurrences of health problems	33.4	30.8	38.4	33.7
Determine how often health management practices are implemented	13.7	10.5	11.9	14.3
Assess impact of health management practices on equine health \and disease	23.0	25.7	23.1	24.7
Study the impact of horses on the environment and the environment on horses	2.0	2.0	2.2	3.0
Study humane issues such as transport of horses and racing injuries	23.2	26.0	20.4	19.1
Other than those listed	3.5	4.0	2.7	3.8
No response	1.2	1.0	1.3	1.4
Total	100.0	100.0	100.0	100.0
Problems by Body System (Top five of possible eight categories):				
Respiratory problems	15.9	16.3	15.5	11.0
Digestive problems	37.3	32.4	37.0	45.7
Leg problems	27.1	28.8	24.6	25.2
Reproductive problems	7.5	4.6	7.7	5.7
Spinal problems	3.1	3.6	5.1	1.4
All other responses[2]	8.1	12.1	8.1	8.2
No response	1.0	2.2	2.0	2.8
Total	100.0	100.0	100.0	100.0
Infectious Diseases (Top six of possible 14 diseases):				
Equine infectious anemia (EIA)	26.1	18.5	27.3	17.4
Equine protozoal myeloencephalitis (EPM)	25.9	25.5	31.3	14.4
Strangles	10.0	4.0	4.5	8.9
Equine influenza	8.1	10.7	6.1	12.7
Equine herpesviruses	5.1	4.8	4.8	6.3
Eastern/Western encephalitis (sleeping sickness)	4.1	8.3	5.7	7.0
All other responses[3]	9.3	15.1	11.0	19.2
No response	11.4	13.1	9.3	14.1
Total	100.0	100.0	100.0	100.0

1 The region, based on zip code, could not be determined for 207 respondents.
2 Eye problems, skin problems, and other problems not listed.
3 Equine viral arteritis (EVA), Rhodococcus equi, vesicular stomatitis (VS), salmonellosis, rotavirus, cryptosporidia, botulism, and diseases other than those listed.